

# **Content-Based Instruction, Cooperative Learning, and CALP Instruction: Addressing the Whole Education of 7-12 ESL Students**

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## **ABSTRACT**

Much more than content-based instruction (CBI) is necessary to meet the needs of 7-12 ESL students. Cooperative learning and cognitive academic language instruction (CALP) instruction should be incorporated into CBI in order for middle and high school students to become self-directed learners capable of advancing to higher education. All teachers who work with language-minority students, not just ESL teachers, must play a part in helping their students to gain the linguistic ability, content knowledge and academic skills necessary to succeed in their classes and beyond high school.

## **INTRODUCTION**

If ESL teachers want their students to be successful in as well as beyond the ESL classroom, the goal of ESL teaching should be to empower students to become independent learners. In order to do this, teachers need to address their students' whole education. This is particularly true at the 7-12 level, where ESL learners require much more than language skills in order to achieve in school and advance to higher education. Content-based instruction (CBI) is an effective means of second language teaching, but it is not enough. Middle and high school ESL students also need skills that foster their independence as learners. With these skills, they can meet the cognitive and academic challenges of high school and go on to be successful in college. Cooperative learning and Cognitive Academic Language Proficiency (CALP) instruction are approaches that can be incorporated into content-based instruction in order to address all of the needs of ESL students. In this paper, I will discuss the strengths and weaknesses of content-based instruction, cooperative learning and CALP instruction and show evidence from research and my own teaching experience to support these approaches. Finally, I will argue that certain changes are needed in order for these approaches to contribute to the whole education of 7-12 ESL students.

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## CONTENT-BASED INSTRUCTION (CBI)

Although CBI alone does not lead directly to learner independence, one of its primary strengths is that approaches that do foster independent learning can be incorporated into CBI. Another strength of CBI is that it can be implemented in a variety of teaching contexts. CBI has been proven effective in programs for English for Specific Purposes (ESP), vocational and workplace education, K-12 classrooms in both first and second language learning, bilingual education, sheltered instruction, and college-level foreign language instruction. Factors that demonstrate its success include high teacher and student interest, program enrollment, and student adjustment to future academic contexts (Grabe & Stoller, 1997). Underlying CBI's success is what Oxford and Scarcella (1992) call "depth of learning--the notion that if students are actively engaged in meaningful, related theme-based tasks, they gain repeated exposure to language that helps them to process the language" (p. 6). Both Cummins (1994) and Grabe and Stoller (1997) note that Krashen's (1983) comprehensible input hypothesis gives support to CBI. This hypothesis states that, "We acquire by understanding language a bit beyond our current level of competence. This is done with the help of context" (Krashen & Terrell, 1983, p. 37). This hypothesis supports the context-embedded language teaching prescribed by CBI. Snow, Met and Genesee (1989) use the image of *cognitive hangers* to express the need for language structures to be taught in a meaningful context. Integrating content and language provides students with repeated, natural exposure to the language which mirrors the environment of first language acquisition. CBI also offers a variety of opportunities to engage in meaningful communication with others (Met, 1991; Snow, Met, & Genesee, 1989). Finally, CBI is beneficial to 7-12 ESL students who are expected to learn subject matter knowledge as they are acquiring English. For these students it does not make sense to postpone the teaching of content material until after they have learned English (Grabe & Stoller, 1997). In fact, learning language through content provides an opportunity to teach academic tasks and higher order thinking skills (Met, 1991). Thus, the integrated teaching of language and content is not only beneficial for ESL students, but also necessary for students' overall success in school.

Several research studies support the integration of content and language in second language learning and overall academic achievement for ESL students. Raphan and Moser (1993/94) provide positive evidence in the form of student responses to a college-level class combining language and content instruction in art history. Kasper (1994, 1995/96) demonstrates more empirical data from studies involving ESL students in paired ESL reading classes and mainstream psychology classes at a community college. The results show that more students who were in the paired classes passed the ESL reading class than those who were only in the ESL reading class. The students in the paired classes also scored significantly higher on the final reading assessment test. Kasper (1997) did a follow-up study with these same subjects to track their performance in subsequent mainstream classes. Comparing students who had taken paired ESL and content classes to those who had taken ESL classes alone, she shows that the students from paired classes scored higher on both reading and writing assessment tests. More students from paired classes progressed to the mainstream composition class. Of those students, many more from the paired class passed the composition course and overall, they received higher grades in the course. Finally, the study demonstrates that more students from paired classes go on to graduate. These studies indicate both the short-term effectiveness and long-term benefits of integrating language teaching with content instruction.

Despite the many benefits of content-based instruction, it also has shortcomings. McKeon (1994) has pointed out that CBI is not enough because ESL students face a greater cognitive challenge than native speakers when learning content in their second language. Middle and high school ESL students require academic skills in conjunction with language and content in order to be successful. These skills include higher order thinking skills, learning strategies and CALP (Grabe & Stoller, 1997). Kinsella (1997) has criticized CBI for being too *teacher driven*. She argues that ESL teachers adjust teaching materials to make them accessible to their students rather than teaching their students the skills of learning on their own. She states that, despite the effectiveness of CBI in contextualizing language and making input comprehensible, this practice does not create independent learners:

These modifications of instructional delivery place the bulk of the responsibility on the teacher, and while facilitating short-term comprehension, they do not necessarily contribute to the ESL students' ability to confidently and competently embark on independent learning endeavors... (pp. 50-51).

Kinsella goes on to say that ESL teachers who fail to do more than make their lessons engaging and understandable inadvertently act as *institutional gatekeepers*. As long as ESL teachers do the work of making material accessible, their students will not gain the skills needed to approach the material independently. CBI alone, without the integration of academic skills instruction, does not foster self-directed learners. In not teaching them how to be autonomous learners, it fails to prepare them for learning outside of the ESL classroom.

In my personal experience in teaching at a high school, as well as at the elementary level and with adult learners, I have also seen evidence of the strengths and weaknesses of content-based instruction. In my experience at the high school level, no systematic coordination exists between teachers of content area subjects and ESL teachers. In general, ESL teachers, including myself, choose thematic unit topics without taking into consideration the needs of students in content area classes. Thus, we miss out on an opportunity to help our students in the classes where they most need support. I have also observed many positive results to teaching thematic units. First, I have noticed that student interest is higher throughout all activities of the unit than when doing activities that are not related by a common theme. Students are more enthusiastic about, and therefore, more successful with reading and writing activities in thematic units because these skills are easier to accomplish when the topic is context-embedded and students have ample background knowledge about it. Students' retention of vocabulary, language structures and key concepts is also better in thematic units. I believe that this is due to the recycling of language and ideas throughout the unit and to the fact that activities address a range of learning styles and include hands-on and interactive group work. CBI lends itself to the incorporation of group work, particularly cooperative learning, which is an effective way of teaching content and language.

## COOPERATIVE LEARNING

The main strength of cooperative learning is that it is student-centered. It promotes learner independence by encouraging students to learn from each other, not just from the teacher. Richard-Amato (1996) makes the association between cooperative learning and the theoretical

foundations of education put forth by Freire and Vygotsky. In concurrence with Freire's (1970, 1988) notion of libertarian education, cooperative learning allows for flexible roles between the teacher and students. McGroarty (1989) notes the problem of traditional teacher and student roles:

... [R]eliance on transmission of knowledge through teacher presentation... may thus retard the academic progress of students who learn best through other group settings and other approaches to knowledge where they can draw on their ability to interact with each other and with curriculum materials... (p. 59).

Academic progress involves learning from peers. While teachers do most of the talking in traditional classrooms, cooperative learning groups give students the opportunity to apply new information, including linguistic knowledge, which is particularly important for ESL students (Echevarria, Vogt, & Short, 1999). Richard-Amato also points out that, although Vygotsky (1978, cited in Richard-Amato, 1996), like Freire, did not directly address second language learning, his idea that not all learning comes from the teacher lends support to cooperative learning. He claimed that learning also takes place in collaboration with peers. Cooperative learning builds on both Freire's and Vygotsky's beliefs in that it is student-centered and it encourages students to gain independence from the teacher. Cooperative learning encourages ESL students to become responsible learners who are actively involved in their acquisition of linguistic and content knowledge at the same time that they become aware of their roles as members of a class community.

Evidence from research demonstrates the multiple benefits of cooperative learning. Findings from 25 different studies (Slavin, 1980) show that cooperative learning techniques are more effective than traditional ones for student achievement. The studies show that the aspects of structure, individual accountability and group rewards increase lower level learning outcomes, and that higher level learning outcomes are also improved by the components of autonomy and group decision-making. In addition to cognitive improvements, the studies also reveal affective benefits. Cooperative learning results in students' feeling greater mutual concern for each other and an overall greater liking of school, as compared to students who receive traditional teaching techniques. Cooperative learning also improves race relations and individual student self-esteem. Higher achievement in students who learn through cooperative learning is found across ability levels, grade levels and subject areas, including second language learning (Slavin, 1986). In light of all these positive effects, Slavin (1980) proposes that cooperative learning not just supplement traditional teaching methods, but take the place of them.

Others have argued that the very same elements of cooperative learning that Slavin finds so effective contribute to its weaknesses. Randall (1999) believes that placing the responsibility of student learning on other students is unfair and unrealistic:

It would be handy if our democratic ideals could guarantee that students would learn equally or work equally, but they do not. We place too great a burden on children and teens not only by making them responsible for each other's learning (Can you ultimately be responsible for anyone's learning besides your own?), but also by grading them on how much other students learn (p. 15).

Because students do not learn equally, Randall finds that holding students accountable for their own learning is the only fair way to assign grades. Randall further disagrees with the cooperative learning practice of grouping students of mixed ability levels. She cites research from mathematics classes showing that high-achieving students become bored of explaining material to low-achieving students and that low-achieving students become passive members of the group (Mulryan, 1994, cited in Randall, 1999). Another weakness of cooperative learning is found in research comparing whole class instruction and cooperative learning in the teaching of higher order thinking skills (Ross, 1988). The results contradict Slavin's previous findings in showing cooperative learning to be slightly less effective than whole class instruction, particularly in promoting problem-solving skills. These weaknesses of cooperative learning may be due not to cooperative learning itself, but to the way that it is implemented. As with CBI, cooperative learning is weakened by the fact that it is not systematically put in place. The definition of cooperative learning varies among different teachers, schools and school districts, so that it does not look the same everywhere (Walsh, personal communication). Some teachers may simply consider cooperative learning to be group work. If this disparity did not exist, and if teachers across the various content areas implemented cooperative learning in the same way, they would find it to be an essential learning tool of a student-centered classroom.

In my teaching experience at the high school level, I have not found problems with cooperative learning, but with other teachers' willingness to implement it. Because the structures of cooperative learning foster independent learning and address the academic and linguistics skills of students as well as their social and emotional development, teaching the procedures of these structures is complex and time-consuming. The structures on which different activities are based include team building, class building, communication building, mastery, and concept development (Valdez-Pierce, 1992). Some teachers may see it as a weakness that these structures require practice for students to become familiar with the procedures. They might also fear that they will lose control of the class or that students will not take seriously their responsibility toward their peers. In fact, in my experience, this is not the case and, on the contrary, when given responsibility, students enthusiastically take on the opportunity to teach and learn from each other. I have found that cooperative learning is worth the energy it takes to put into place because it gives teachers access to a repertoire of structures that promote self-directed learning and can be used with multiple content areas.

## CALP INSTRUCTION

In addition to cooperative learning, CALP instruction is an essential element to be incorporated into CBI in order for 7-12 ESL students to acquire the academic skills they need to become independent learners. Kinsella (1997) refers to the skill of *learning to learn* as indispensable to ESL students if they are not just to learn content and language, but also "to tackle the next textbook chapter on their own, take effective lecture notes, prepare for an upcoming exam, expand their academic English vocabulary, or competently answer an essay question" (p. 52). Short (1991) also notes that these same skills of attacking academic tasks independently are demanded of students when they are mainstreamed. In the teaching of reading to ESL students, Dubin and Bycina (1991) point out the importance of providing "the skills and strategies needed to become efficient, effective and independent readers" (p. 202). Grabe and Stoller (1997) emphasize the necessity of CALP instruction in CBI when they write, "CALP is

the language of content instruction” (p. 8). In order for ESL teachers to enable their students to be successful, independent learners outside of the ESL classroom, CALP must be a part of their instruction.

Several research studies demonstrate the need for CALP instruction in the overall academic success of ESL learners. Saville-Troike (1984) found that one of the most important factors for the achievement of ESL students to be CALP instruction in the first language. Both Cummins (1981) and Collier (1987) discovered that with CALP instruction in the second language, it takes students a minimum of five years to reach native speaker norms at the 50<sup>th</sup> percentile on standardized tests. Collier found this to be the case even for students with schooling in their home countries. For students with no schooling in their home countries, she showed that 7 to 8 years of CALP instruction is necessary in order for students to reach the same percentile. With no CALP instruction, ESL students do not have enough time in high school to catch up academically. This is the case for students with and without schooling in their home countries. Collier (1989) notes the implications of this research:

It appears that secondary students cannot afford the loss of 2 to 3 years of academic instruction while they are mastering basic L2, if their expectations are to compete successfully with native speakers who plan to pursue a university degree (p. 520).

Collier refers to an assumption in education that once ESL students learn basic English skills, they will be able to achieve in school. The research shows that this is not the case. Regardless of their educational background in their home countries, ESL students require CALP instruction along with basic language skills in order to become successful learners in high school and college. ESL teachers, then, face the responsibility of teaching not just language skills, but also the academic skills which students need to achieve in all their classes.

Kinsella (1997) has pointed out that it is unfair to place all the responsibility of ESL students’ academic skills on ESL teachers. Both she and McKeon (1994) note that, although many ESL teachers incorporate CALP instruction in their teaching, as with CBI and cooperative learning, there is no systematic program of CALP instruction in place. Kinsella (1997) argues that all who work with non-native speakers of English should share the responsibility:

It is not realistic for the ESL instructor alone to take the initiative and shoulder the responsibility for comprehensively preparing English language learners for the varied demands of mainstream curricula. Students who spend the school day in diverse content classrooms, lacking full English proficiency as well as subject matter background knowledge, need *every* teacher to demystify learning by sharing the academic secrets of successful students in their respective disciplines (p. 53).

More systematic planning is crucial not only for content area teachers to become involved in CALP instruction, but also for more ESL teachers to be convinced of the need to teach their students through more traditional methods. Kinsella notes that many ESL teachers employ only progressive teaching approaches because they perceive them to be more effective in language learning. But Met (1994) states that it is, “important that second language teachers be defined as teachers of academic language” (p. 178). ESL teachers need to use both traditional and progressive instruction if their students are to gain the academic competence which will help them in all their classes.

Reflecting on my personal experience, I realize that my teaching of CALP could have been much more effective. To some extent, I am guilty of committing the same error that Kinsella (1997) points out in many ESL teachers. When using reading passages, I made the material accessible for my students, rather than teaching them the skills of how to *tackle* the reading independently. On the other hand, I taught my students the academic skills of lecture note-taking and test preparation. Although these *learning to learn* skills are necessary for success in all their classes, my students had not previously learned these skills explicitly. Their lack of experience with these basic academic skills underlines the need for some systematic implementation of CALP instruction for high school ESL students.

## CONCLUSION

Enabling ESL students to become self-directed learners, then, requires addressing their whole education. This involves instruction in language, content and academic skills. But certain changes must occur for the approaches of CBI, cooperative learning, and CALP instruction to be completely effective. It is necessary for not just ESL teachers, but for all teachers who work with language minority students, to play a part in teaching them the skills to become independent learners. Students deserve to know what Kinsella (1997) calls the *academic secrets* of each subject area they are studying. In order for ESL students to become equipped with the skills they need to be successful in all their classes, all teachers who work with ESL students should redefine their responsibilities toward students and their relationships with other teachers (Met, 1994). Once teachers realize that they are all teachers of language as well as content (Cummins, 1994), they can work together systematically. Teachers first need to reach out to each other in order to help their students to gain the linguistic, content and academic skills and knowledge necessary in order to succeed in all their classes and beyond high school.

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